



PRODUCT

NALCO A-Z-LITE 7356

Emergency Telephone Number

Medical (800) 462-5378 (24 hours)

(800) I-M-ALERT

SECTION 8 FIRE AND EXPLOSION INFORMATION

FLASH POINT: None (FMCC) ASTM D-93

EXTINGUISHING MEDIA: Not applicable

UNUSUAL FIRE AND EXPLOSION HAZARD: Contact with reactive metals (eg. aluminum) may result in the generation of flammable hydrogen gas.

SECTION 9 REACTIVITY INFORMATION

INCOMPATIBILITY: Avoid alkaline materials (eg. ammonia and its solutions, carbonates, sodium hydroxide (caustic), potassium hydroxide, calcium hydroxide (lime), cyanides, sulfides, hypochlorites, chlorites) which can generate heat with splattering or boiling and the release of toxic fumes.

Avoid contact with aluminum. Corrosive to aluminum.

THERMAL DECOMPOSITION PRODUCTS: In the event of combustion CO, CO₂ may be formed. Do not breathe smoke or fumes. Wear suitable protective equipment.

SECTION 10 PERSONAL PROTECTION EQUIPMENT

RESPIRATORY PROTECTION: If it is possible to generate significant levels of vapors or mists, a NIOSH approved or equivalent acid gas cartridge respirator is recommended.

For large spills, entry into large tanks, vessels or enclosed small spaces with inadequate ventilation, a pressure-demand, self-contained breathing apparatus is recommended.

VENTILATION: General ventilation is recommended.

PROTECTIVE EQUIPMENT: Use impermeable gloves and chemical splash goggles when attaching feeding equipment, doing maintenance or handling product. Examples of impermeable gloves available on the market are neoprene, nitrile, PVC, natural rubber, viton and butyl (compatibility studies have not been performed).

The availability of an eye wash fountain and safety shower is recommended.

If clothing is contaminated, remove clothing and thoroughly wash the affected area. Launder contaminated clothing before reuse.

SECTION 11 SPILL AND DISPOSAL INFORMATION

IN CASE OF TRANSPORTATION ACCIDENTS, CALL THE FOLLOWING 24-HOUR



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(800) I-M-ALERT

SECTION 11 SPILL AND DISPOSAL INFORMATION

(CONTINUED)

TELEPHONE NUMBER (800) I-M-ALERT or (800) 462-5378.

SPILL CONTROL AND RECOVERY:

Small liquid spills: Contain with absorbent material, such as clay, soil or any commercially available absorbent. Shovel reclaimed liquid and absorbent into recovery or salvage drums for disposal. Refer to CERCLA in Section 14.

Large liquid spills: Dike to prevent further movement and reclaim into recovery or salvage drums or tank truck for disposal. Refer to CERCLA in Section 14.

For large indoor spills, evacuate employees and ventilate area. Those responsible for control and recovery should wear the protective equipment specified in Section 10.

DISPOSAL: If this product becomes a waste, it meets the criteria of a hazardous waste as defined under the Resources Conservation and Recovery Act (RCRA) 40 CFR 261. Hazardous Waste D002.

As a hazardous liquid waste, it should be solidified with stabilizing agents (such as sand, fly ash, or cement) so that no free liquid remains before disposal to an industrial waste landfill. A hazardous liquid waste can also be deep-well injected in accordance with local, state, and federal regulations.

SECTION 12 ENVIRONMENTAL INFORMATION

AQUATIC DATA:

96 hour static acute LC50 to Bluegill Sunfish = 700 mg/L

96 hour no observed effect concentration is 180 mg/L based on no mortality or abnormal effects.

TOXICITY RATING: Slightly toxic

96 hour static acute LC50 to Rainbow Trout = 8.7 mg/L

96 hour no observed effect concentration is 2.5 mg/L based on no mortality or abnormal effects.

TOXICITY RATING: Toxic

96 hour static acute LC50 to Mysid Shrimp = 26.9 mg/L



MATERIAL SAFETY DATA SHEET

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SECTION 12 ENVIRONMENTAL INFORMATION

(CONTINUED)

96 hour NOEC = 15 mg/L

TOXICITY RATING: Moderately toxic

If released into the environment, see CERCLA in Section 14.

SECTION 13 TRANSPORTATION INFORMATION

PROPER SHIPPING NAME/HAZARD CODE - CORROSIVE LIQUID, N.O.S.
(DEPENDENT UPON MODE, PACKAGE) 8, UN 1760, PG III
CONTAINS - PHOSPHORIC ACID,
ZINC CHLORIDE

SECTION 14 REGULATORY INFORMATION

The following regulations apply to this product.

FEDERAL REGULATIONS:

OSHA'S HAZARD COMMUNICATION RULE, 29 CFR 1910.1200:

Based on our hazard evaluation, the following ingredients in this product are hazardous and the reasons are shown below.

Phosphoric acid = TWA 1 mg/m³, STEL 3 mg/m³ ACGIH/TLV
Zinc chloride (fume) = TWA 1 mg/m³, STEL 2 mg/m³ ACGIH/TLV

Phosphoric acid = TWA 1 mg/m³, STEL 3 mg/m³ OSHA/PEL
Zinc chloride (fume) = TWA 1 mg/m³, STEL 2 mg/m³ OSHA/PEL

CERCLA/SUPERFUND, 40 CFR 117, 302:

This product contains zinc chloride a Reportable Quantity (RQ) substance and if 24,000 pounds of product are released, it requires notification to the NATIONAL RESPONSE CENTER, WASHINGTON, D. C. (1-800-424-8802).

SARA/SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986
(TITLE III) - SECTIONS 302, 311, 312 AND 313:

SECTION 302 - EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355):

This product does not contain ingredients listed in Appendix A and B as an Extremely Hazardous Substance.

SECTIONS 311 and 312 - MATERIAL SAFETY DATA SHEET REQUIREMENTS (40 CFR 370):
Our hazard evaluation has found this product to be hazardous. The product



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SECTION 14 REGULATORY INFORMATION

(CONTINUED)

should be reported under the following EPA hazard categories:

- XX Immediate (acute) health hazard
- Delayed (chronic) health hazard
- Fire hazard
- Sudden release of pressure hazard
- Reactive hazard

SECTION 313 - LIST OF TOXIC CHEMICALS (40 CFR 372):

This product contains the following ingredient(s), (with CAS # and % range) which appear(s) on the List of Toxic Chemicals.

Phosphoric acid	7664-38-2	5-10
Zinc chloride	7646-85-7	1-5

TOXIC SUBSTANCES CONTROL ACT (TSCA):

The chemical ingredients in this product are on the 8(b) Inventory List (40 CFR 710).

U. S. DEPARTMENT OF AGRICULTURE (USDA):

USDA Inspection and Grading Programs - Food Safety and Inspection Service: This product is authorized by USDA for use in federally inspected meat and poultry plants. Authorized use is under category G5, for treatment of cooling and retort water; and G7, treating boilers, steam lines, and/or cooling systems. The following limitations apply for G7: no contact with edible products.

RESOURCE CONSERVATION AND RECOVERY ACT (RCRA), 40 CFR 261 SUBPART C & D: Consult Section 11 for RCRA classification.

FEDERAL WATER POLLUTION CONTROL ACT, CLEAN WATER ACT, 40 CFR 401.15 (formerly Sec. 307), 40 CFR 116 (formerly Sec. 311):

This product contains the following ingredients covered by the Clean Water Act:

Zinc chloride - Section 307, 311
Phosphoric acid - Section 311

CLEAN AIR ACT, Sec. 111 (40 CFR 60), Sec. 112 (40 CFR 61, 1990 Amendments), Sec. 611 (40 CFR 82, CLASS I and II Ozone depleting substances): This product does not contain ingredients covered by the Clean Air Act.

STATE REGULATIONS:

CALIFORNIA PROPOSITION 65:



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SECTION 14 REGULATORY INFORMATION

(CONTINUED)

This product does not contain any chemicals which require warning under California Proposition 65.

MICHIGAN CRITICAL MATERIALS:

This product contains the following substance(s) identified on the Michigan Critical Materials Register:

Zinc chloride

STATE RIGHT TO KNOW LAWS:

Regulated in those states using the TLV for zinc chloride, phosphoric acid as a criteria for listing.

INTERNATIONAL REGULATIONS:

This is a WHMIS controlled product under The House of Commons of Canada Bill C-70. The product contains the following substance(s), from the Ingredient Disclosure List or has been evaluated based on its toxicological properties, to contain the following hazardous ingredient(s):

Chemical Name	CAS #	% Concentration Range
Phosphoric acid	7664-38-2	5-10
Zinc chloride	7646-85-7	1-5

SECTION 15 ADDITIONAL INFORMATION

None

SECTION 16 USER'S RESPONSIBILITY

This product material safety data sheet provides health and safety information. The product is to be used in applications consistent with our product literature. Individuals handling this product should be informed of the recommended safety precautions and should have access to this information. For any other uses, exposures should be evaluated so that appropriate handling practices and training programs can be established to ensure safe workplace operations. Please consult your local sales representative for any further information.

SECTION 17 BIBLIOGRAPHY

ANNUAL REPORT ON CARCINOGENS, U.S. Department of Health and Human Services, Public Health Service, PB 33-135855, 1983.



PRODUCT

NALCO A-Z-LITE 7356

Emergency Telephone Number

Medical (800) 462-5378 (24 hours)

(800) I-M-ALERT

SECTION 17 BIBLIOGRAPHY

(CONTINUED)

CASARETT AND DOULL'S TOXICOLOGY, THE BASIC SCIENCE OF POISONS, Doull, J., Klaassen, C. D., and Admur, M. O., eds., Macmillian Publishing Company, Inc., N. Y., 2nd edition, 1980.

CHEMICAL HAZARDS OF THE WORKPLACE, Proctor, N. H., and Hughes, J. P., eds., J. P. Lipincott Company, N.Y., 1981.

DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS, Sax, N. Irving, ed., Van Nostrand Reinhold Company, N.Y., 6th edition, 1984.

IARC MONOGRAPHS ON THE EVALUATION OF THE CARCINOGENIC RISK OF CHEMICALS TO MAN, Geneva: World Health Organization, International Agency for Research on Cancer, 1972-1977.

PATTY'S INDUSTRIAL HYGIENE AND TOXICOLOGY, Clayton, G. D., Clayton, F. E., eds., John Wiley and Sons, N. Y., 3rd edition, Vol. 2 A-C, 1981.

REGISTRY OF TOXIC EFFECTS ON CHEMICAL SUBSTANCES, U.S. Department of Health and Human Services, Public Health Service, Center for Disease Control, National Institute for Occupational Safety and Health, 1983 supplement of 1981-1982 edition, Vol. 1-3, OH, 1984.

Title 29 Code of Federal Regulations Part 1910, Subpart Z, Toxic and Hazardous Substances, Occupational Safety and Health Administration (OSHA).

THRESHOLD LIMIT VALUES FOR CHEMICAL SUBSTANCES AND PHYSICAL AGENTS IN THE WORKROOM ENVIRONMENT WITH INTENDED CHANGES, American Conference of Governmental Industrial Hygienists, OH.

PREPARED BY: Ricky A. Stackhouse PhD., Toxicologist
DATE CHANGED: 08/17/93

DATE PRINTED: 06/06/94

MATERIAL SAFETY DATA SHEET

EXXON
CHEMICAL

CALLAWAY CHEMICAL COMPANY

A Division of EXXON CHEMICAL COMPANY
P.O. Box 2336, Columbus, Georgia 31903-3336

JAYFLOC 3610

PAGE: 1
DATE PREPARED: JAN 28, 1993
MSDS NO.: PO

SECTION 1 PRODUCT IDENTIFICATION & EMERGENCY INFORMATION

PRODUCT NAME: JAYFLOC 3610

CHEMICAL NAME:
Polyamine

CHEMICAL FAMILY:
Cationic polymer

PRODUCT DESCRIPTION:
Light straw colored liquid, mild odor

EMERGENCY TELEPHONE NUMBERS: CALLAWAY CHEMICAL COMPANY 706-576-2000
CHEMTREC 800-424-9300

SECTION 2 HAZARDOUS INGREDIENT INFORMATION

The composition of this mixture may be proprietary information. In the event of a medical emergency, compositional information will be provided to a physician or nurse. This product is hazardous as defined in 29 CFR 1910.1200, based on the following compositional information:

COMPONENT	OSHA HAZARD
Polyamine resin	Eye Irritant

For additional information see Section 3.

SECTION 3 HEALTH INFORMATION & PROTECTION

NATURE OF HAZARD

EYE CONTACT:

Irritating, but does not injure eye tissue.

SKIN CONTACT:

Low order of toxicity.

Frequent or prolonged contact may irritate and cause dermatitis.

May cause skin sensitization, an allergic reaction which becomes evident on reexposure to this material.

INHALATION:

Negligible hazard at ambient (-18 to 38 Deg C; 0 to 100 Deg F) or recommended blending temperature.

Irritating to eyes and respiratory tract in high concentrations.

INGESTION:

Minimal toxicity.

FIRST AID

EYE CONTACT:

Flush eyes with large amounts of water until irritation subsides. If irritation persists, get medical attention.



MATERIAL SAFETY DATA SHEET

CALLAWAY CHEMICAL COMPANY

A Division of EXXON CHEMICAL COMPANY
P.O. Box 2338, Columbus, Georgia 31903-3599

JAYFLOC 3610

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SKIN CONTACT:

Flush with large amounts of water; use soap if available.
Remove grossly contaminated clothing, including shoes, and launder before reuse.
If irritation persists, seek medical attention.

INHALATION:

Using proper respiratory protection, immediately remove the affected victim from exposure. Administer artificial respiration if breathing is stopped. Keep at rest. Call for prompt medical attention.

INGESTION:

First aid is normally not required.

WORKPLACE EXPOSURE LIMITS

No workplace exposure limits have been established for this product.

PRECAUTIONS

PERSONAL PROTECTION:

For open systems where contact is likely, wear chemical resistant gloves, rubber boots, a chemical jacket, and a face shield.
Where contact may occur, wear long sleeves, chemical resistant gloves, and a face shield.
Where overexposure by inhalation may occur and engineering, work practice or other means of exposure reduction are not adequate, approved respirators may be necessary.
All contact should be avoided by persons with known hypersensitivity to POLYAMINE

VENTILATION:

Maintain ambient concentrations below recommended exposure limits.

SECTION 4 FIRE & EXPLOSION HAZARD

FLASHPOINT: > 200 Deg F. METHOD: PMCC NOTE: None
FLAMMABLE LIMITS: NOTE: None
AUTOIGNITION TEMPERATURE: Not available

GENERAL HAZARD:

Low Hazard, liquid can burn upon heating to temperatures at or above the flashpoint.
"Empty" containers retain product residue (liquid and/or vapor) and can be dangerous. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.
Empty drums should be completely drained, properly bunged and promptly returned to a drum reconditioner, or properly disposed of.

FIRE FIGHTING:

Use water spray to cool fire exposed surfaces and to protect personnel.
Isolate "fuel" supply from fire.
Use alcohol type foam, dry chemical or water spray to extinguish fire.
Avoid spraying water directly into storage containers due to danger of boilover.



MATERIAL SAFETY DATA SHEET

CALLAWAY CHEMICAL COMPANY

A Division of EXXON CHEMICAL COMPANY
P.O. Box 2336, Columbus, Georgia 31902-3606

JAYFLOC 3610

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HAZARDOUS COMBUSTION PRODUCTS:
No Unusual

SECTION 5 SPILL CONTROL PROCEDURE

LAND SPILL:

Eliminate sources of ignition. Prevent additional discharge of material, if possible to do so without hazard. For small spills implement cleanup procedures; for large spills implement cleanup procedures and, if in public area, keep public away and advise authorities. Also, if this product is subject to CERCLA reporting (see Section 7) notify the National Response Center.
Prevent liquid from entering sewers, watercourses, or low areas. Contain spilled liquid with sand or earth.
Recover by pumping or with a suitable absorbent.
If liquid is too viscous for pumping, scrape up.
Consult an expert on disposal of recovered material and ensure conformity to local disposal regulations.

WATER SPILL:

Consult an expert on disposal of recovered material and ensure conformity to local disposal regulations.

SECTION 6 NOTES

NOTES:

No notes applicable.

SECTION 7 REGULATORY INFORMATION

DEPARTMENT OF TRANSPORTATION (DOT):

DOT HAZARD CLASS: Not Regulated
DOT IDENTIFICATION NUMBER: Not Available

FLASHPOINT: > 200 Deg F. METHOD: PMCC NOTE: None

TSCA:

Components of this product are listed on the TSCA Inventory.

CERCLA:

If this product is accidentally spilled, it is not subject to any special reporting under the requirements of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). We recommend you contact local authorities to determine if there may be other local reporting requirements.

SARA TITLE III:

Under the provisions of Title III, Sections 311/312 of the Superfund Amendments and Reauthorization Act, this product is classified into the following hazard categories:
Immediate health.



MATERIAL SAFETY DATA SHEET

CALLAWAY CHEMICAL COMPANY

A Division of EXXON CHEMICAL COMPANY
P.O. Box 2338, Columbus, Georgia 31903-2338

JAYFLOC 3610

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DATE PREPARED: JAN 28, 1993
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This product does not contain Section 313 Reportable Ingredients.

SECTION 8 TYPICAL PHYSICAL & CHEMICAL PROPERTIES

SPECIFIC GRAVITY:

1.08 - 1.18 CP AT 25 C

SOLUBILITY IN WATER, WT. % AT °F:

Soluble

SP. GRAV. OF VAPOR, at 1 atm (Air=1):

Not available

EVAPORATION RATE, n-Bu Acetate=1:

Less than 1

VAPOR PRESSURE, mmHg at °F:

24 at 77

VISCOSITY OF LIQUID, CST AT °F:

500 - 1000 cp at 25 C

FREEZING/MELTING POINT, °F:

20 to 32

BOILING POINT, °F:

210 to 215

SECTION 9 REACTIVITY DATA

STABILITY:

Stable

CONDITIONS TO AVOID INSTABILITY:

Not Applicable

HAZARDOUS POLYMERIZATION:

Will not occur

MATERIALS AND CONDITIONS TO AVOID INCOMPATIBILITY:

Strong oxidizing agents and strong alkali.

HAZARDOUS DECOMPOSITION PRODUCTS:

None

SECTION 10 STORAGE AND HANDLING

ELECTROSTATIC ACCUMULATION HAZARD:

Unknown, use proper grounding procedure

STORAGE TEMPERATURE, °F:

Ambient

STORAGE/TRANSPORT PRESSURE, mmHg:

Atmospheric

LOADING/UNLOADING TEMPERATURE, °F:

Ambient

VISC. AT LOADING/UNLOADING TEMP., CST:

Not available

REVISION SUMMARY:

Since JULY 27, 1992 this MSDS has been revised in Section(s):

7

REFERENCE NUMBER:

HDHA-P-10759

DATE PREPARED:

January 28, 1993

SUPERSEDES ISSUE DATE:

July 27, 1992

FOR ADDITIONAL PRODUCT INFORMATION, CONTACT YOUR TECHNICAL SALES REPRESENTATIVE
FOR ADDITIONAL HEALTH/SAFETY INFORMATION, CALL 706-576-6407

THIS INFORMATION RELATES TO THE SPECIFIC MATERIAL DESIGNATED AND MAY NOT BE VALID FOR SUCH MATERIAL USED IN COMBINATION WITH ANY OTHER MATERIALS OR IN ANY PROCESS. SUCH INFORMATION IS TO THE BEST OF OUR KNOWLEDGE AND BELIEF, ACCURATE AND RELIABLE AS OF THE DATE COMPILED. HOWEVER, NO REPRESENTATION, WARRANTY OR GUARANTEE IS MADE AS TO ITS ACCURACY, RELIABILITY OR COMPLETENESS. IT IS THE USER'S RESPONSIBILITY TO SATISFY HIMSELF AS TO THE SUITABILITY AND COMPLETENESS OF SUCH INFORMATION FOR HIS OWN PARTICULAR USE. WE DO NOT ACCEPT LIABILITY FOR ANY LOSS OR DAMAGE THAT MAY OCCUR FROM THE USE OF THIS INFORMATION NOR DO WE OFFER WARRANTY AGAINST PATENT INFRINGEMENT.

Stockhausen

Material Safety Data Sheet

(Approved by U.S. Department of Labor as "essentially similar" to Form LSB-OOS-4)

SECTION I IDENTIFICATION OF PRODUCT	
MANUFACTURER'S NAME STOCKHAUSEN, INC.	EMERGENCY TELEPHONE NO. (919) 378-9393
ADDRESS 2408 Doyle St. Greensboro, N.C. 27408	
TRADE NAME AND SYNONYMS Praestol K122L	
CHEMICAL NAME AND SYNONYMS Quaternary Acrylamide Copolymer	
CHEMICAL FAMILY Cationic Organic Polymers <small>MOLECULAR FORMULA</small> Proprietary	

SECTION II HAZARDOUS COMPONENTS OF MIXTURES			
CAS no.	COMPONENT	%	THRESHOLD LIMIT VALUE (UNIT)
64742-47-3	Hydrocarbon	ca 25%	200ppm TLV *
67-63-0	Isopropyl Alcohol	ca 1.5%	400ppm TWA OSHA

* Exxon recommended TLV per Exxon Medical Research

SECTION III PHYSICAL DATA	
APPEARANCE AND ODOR	White, viscous liquid; characteristic odor
BOILING POINT (DEGREES FAHRENHEIT)	N/E
SPECIFIC GRAVITY (WATER = 1)	ca 1.03
VAPOR PRESSURE (MM OF MERCURY)	Nil - N/E
PERCENT VOLATILE (BY VOLUME)	ca 40%
VAPOR DENSITY (AIR = 1)	Nil - N/E
EVAPORATION RATE (BUTYL ACETATE = 1)	Less than 1
SOLUBILITY IN WATER	Emulsion
EVAPORATION RATE (ETHYL ETHER = 1)	Less than 1

SECTION IV FIRE AND EXPLOSION HAZARD DATA			
FLASH POINT (SPECFY METHOD (DEGREES FAHRENHEIT))	212°F (DIN 51367)	FLAMMABLE LIMITS (PERCENT BY VOLUME)	LOWER N/E UPPER N/E
FIRE-EXTINGUISHING MEDIA	Any available medium		
SPECIAL FIRE-FIGHTING PROCEDURES	Slippery conditions will result upon contact with water.		
UNUSUAL FIRE AND EXPLOSION HAZARDS	None		

The statements, including all descriptions of products and methods, test results, and suggestions, contained in Stockhausen's technical data sheets are provided for a consideration only as general information reflecting Stockhausen's experience with its products and are not to be construed to constitute any representation or warranty, express or implied, by Stockhausen. Users assume full responsibility for determining the appropriate application of any product, method, or suggestion and for taking such precautions against contact to property or injury to persons as are necessary or advisable under the circumstances of use. NO WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE IS MADE. No statement contained in Stockhausen's technical data sheets is to be construed to constitute the permission, recommendation or encouragement of any use or application that may infringe any patents now or hereafter in existence.

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

NE - Observe section II hazardous components data
EFFECTS OF OVEREXPOSURE Contact with the eye may cause irritation.

EMERGENCY AND FIRST AID PROCEDURES

Skin: Wash well with soap and water.
Eyes: Flush with plenty of water for at least 15 minutes. Get medical attention.
Ingestion: Seek Medical attention
Inhalation: Move to source of fresh air. Get medical attention.

SECTION VI REACTIVITY DATA

STABILITY	UNSTABLE	X	CONDITIONS TO AVOID
	STABLE		None

INCOMPATIBILITY (MIXTURES TO AVOID)

None

HAZARDOUS DECOMPOSITION PRODUCTS

None

HAZARDOUS POLYMERIZATION	MAY OCCUR	X	CONDITIONS TO AVOID
	WILL NOT OCCUR		None

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED If material is in contact with water on floor or stairs, slippery conditions will result. Absorb with sawdust of commercial absorbant. When dry, sweep up.

WASTE DISPOSAL METHOD

Dispose of in accordance with local, state, and federal regulations.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type)

None required

VENTILATION	LOCAL EXHAUST	Recommended if fumes are present	SPECIAL
	MECHANICAL (General)	Recommended	None Required
			OTHER
			None Required

PROTECTIVE GLOVES

Recommended

EYE PROTECTION

Safety glasses or chemical goggles.

OTHER PROTECTIVE EQUIPMENT

Eye wash in work area.

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE Material should be stored in a dry location, not over 40°C. Do not expose to freezing temperatures.

OTHER PRECAUTIONS Handle as a irritant. Do not get in eyes. Avoid prolonged contact with the skin. Wash thoroughly after handling.

NA = Not Applicable
NE = Not Established

Date
1/29/86

Serial
9106

Approved By
W.R. Felt
W. R. Felt

...END...

Material Safety Data Sheet

(Approved by U.S. Department of Labor as "essentially similar" to Form LSB-OOS-4)

SECTION I IDENTIFICATION OF PRODUCT	
MANUFACTURER'S NAME STOCKHAUSEN, INC.	EMERGENCY TELEPHONE NO. (919) 378-9393
ADDRESS 2408 Doyle St. Greensboro, N.C. 27408	
TRADE NAME AND SYNONYMS Praestol K230 FL	
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CHEMICAL FAMILY Cationic Organic Polymer	MOLECULAR FORMULA Proprietary

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CAS no.	COMPONENT	%	THRESHOLD LIMIT VALUE (UNITS)
64742-47-3	Hydrocarbon	ca 25%	200ppm TLV *
67-63-0	Isopropyl Alcohol	ca 1.5%	400ppm TWA OSHA

* Exxon recommended TLV per Exxon Medical Research

SECTION III PHYSICAL DATA	
APPEARANCE AND ODOR White, viscous liquid; characteristic odor	SPECIFIC GRAVITY (WATER = 1) ca 1.03
BOILING POINT (DEGREES FAHRENHEIT) N/E	PERCENT VOLATILE (BY VOLUME) ca 40%
VAPOR PRESSURE (MM OF MERCURY) Nil - N/E	EVAPORATION RATE (BUTYL ACETATE = 1) Less than 1
VAPOR DENSITY (AIR = 1) Nil - N/E	EVAPORATION RATE (ETHYL ETHER = 1) Less than 1
SOLUBILITY IN WATER Emulsion	

SECTION IV FIRE AND EXPLOSION HAZARD DATA			
FLASH POINT (SPECIFY METHOD) (DEGREES FAHRENHEIT) 212°F (DIN 51367)	FLAMMABLE LIMITS (PERCENT BY VOLUME)	LOWER N/E	UPPER N/E
FIRE-EXTINGUISHING MEDIA Any available medium			
SPECIAL FIRE-FIGHTING PROCEDURES Slippery conditions will result upon contact with water.			
UNUSUAL FIRE AND EXPLOSION HAZARDS None			

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SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

NE - Observe section II hazardous components data

EFFECTS OF OVEREXPOSURE

Contact with the eye may cause irritation.

EMERGENCY AND FIRST AID PROCEDURES

Skin: Wash well with soap and water.

Eyes: Flush with plenty of water for at least 15 minutes. Get medical attention.

Ingestion: Seek Medical attention

Inhalation: Move to source of fresh air. Get medical attention.

SECTION VI REACTIVITY DATA

STABILITY	UNSTABLE		CONDITIONS TO AVOID
	STABLE	X	

None

INCOMPATIBILITY (Materials to avoid)

None

HAZARDOUS DECOMPOSITION PRODUCTS

None

HAZARDOUS POLYMERIZATION	MAY OCCUR		CONDITIONS TO AVOID
	WILL NOT OCCUR	X	

None

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED If material is in contact with water on floor or stairs, slippery conditions will result. Absorb with sawdust of commercial absorbant. When dry, sweep up.

WASTE DISPOSAL METHOD

Dispose of in accordance with local, state, and federal regulations.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type)

None required

VENTILATION	LOCAL EXHAUST	Recommended if fumes	SPECIAL
	General	Recommended	None Required

PROTECTIVE GLOVES	EYE PROTECTION
-------------------	----------------

Recommended

Safety glasses or chemical goggles.

OTHER PROTECTIVE EQUIPMENT

Eye wash in work area.

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Material should be stored in a dry location, not over 40°C. Do not expose to freezing temperatures.

OTHER PRECAUTIONS

Handle as a irritant. Do not get in eyes. Avoid prolonged contact with the skin. Wash thoroughly after handling.

NA = Not Applicable
NE = Not Established

Date

1/29/86

Serial

0106

Approved By

W.R. Pelt
W. R. Pelt

Material Safety Data Sheet
May be used to comply with
OSHA's Hazard Communication Standard.
29 CFR 1910.1200. Standard must be
consulted for specific requirements.

U.S. Department of Labor
Occupational Safety and Health Administration
(Non-Mandatory Form)
Form Approved
OMB No. 1218-0072



IDENTITY (As Used on Label and List) PRAESTOL K260FL

Note: Blank spaces are not permitted. If any item is not applicable, or no information is available, the space must be marked to indicate that.

Section I

Manufacturer's Name STOCKHAUSEN, INC.	Emergency Telephone Number (919) 378-9393
Address (Number, Street, City, State, and ZIP Code) 2408 Doyle St. Greensboro, N.C. 27406	Telephone Number for Information (919) 333-3500
	Date Prepared September 25, 1991 NA = Not Applicable NE = Not Established
	Signature of Preparer (optional) <i>Walter R. Pett</i>

Section II — Hazardous Ingredients/Identity Information Serial No. 0106 - (1)

Hazardous Components (Specific Chemical Identity; Common Name(s))	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (optional)
Acrylamide copolymer CAS No. 69418-26-4	NE	NE	Irritant (eye)	20-45 (range)
Petroleum hydrocarbon CAS No. 64742-47-8	NE	NE	200ppm* (TLV)	20-30 (range)

*Exxon recommended TLV per Exxon medical research.

Isopropyl alcohol CAS No. 00067-63-0	400 ppm	400 ppm	Irritant ca. 1 - 1.5 (eye)
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SARA Section 313 Reportable Toxic Chemicals - none.

Section III — Physical/Chemical Characteristics

Boiling Point	N/E	Specific Gravity (H₂O = 1) Approximately	1
Vapor Pressure (mm Hg.)	N/E	Melting Point Approximately	5°F
Vapor Density (AIR = 1)	N/E	Evaporation Rate (Butyl Acetate = 1) Less than	1

Solubility in Water
Miscible (soluble) in water. Highly viscous solutions limit solubility.

Appearance and Odor
White, viscous liquid; characteristic mild odor of hydrocarbon.

Section IV — Fire and Explosion Hazard Data

Flash Point (Method Used) Greater than 212°F (COC)	Flammable Limits	LEL NE	UEL NE
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Extinguishing Media
Water fog, CO₂, dry chemical.

Special Fire Fighting Procedures
Fire fighters are to wear self-contained air supplied

breathing apparatus for enclosed areas or areas with heavy smoke/fumes.

Unusual Fire and Explosion Hazards
Petroleum hydrocarbon component if separated from product is combustible.

Exercise caution with spills as product is very slippery, especially with water.

Section V — Reactivity Data

Stability	Unstable		Conditions to Avoid	None Known.
	Stable	X		

Incompatibility (Materials to Avoid) **None Known.**Hazardous Decomposition or Byproducts
On thermal decomposition: **oxides of carbon and nitrogen.**

Hazardous Polymerization	May Occur		Conditions to Avoid	None Known
	Will Not Occur			

Section VI — Health Hazard DataRoutes(s) of Entry: Inhalation? **Yes** Skin? **Yes** Ingestion? **No**Health Hazards (Acute and Chronic)
Irritant to the eyes and skin. Petroleum hydrocarbon component, with prolonged inhalation of heated vapors may irritate the respiratory tract.**Inhalation of mist into lungs may cause pulmonary disorder**Carcinogenicity: NTP? **No** IARC Monographs? **No** OSHA Regulated? **No**Signs and Symptoms of Exposure **Reddening, swelling of affected areas with possible itching, burning or other discomfort.**Medical Conditions Generally Aggravated by Exposure **Existing rashes, cuts, allergies or other sensitive areas.**Emergency and First Aid Procedures **Eyes and skin: Flush thoroughly with water. Inhalation: move to fresh air. Consult physician regarding any continued discomfort.****Section VII — Precautions for Safe Handling and Use**Steps to Be Taken in Case Material is Released or Spilled **Contain and collect, using a suitable absorbent if needed. Flush residuals to drain for normal biological treatment. Put collected material into suitable containers for proper disposal.**Waste Disposal Method **Incinerate or Dispose of unadulterated product as a non-hazardous waste. solidify and landfill according to local, state and Federal regulations.**Precautions to Be Taken in Handling and Storing **Handle as an irritant. Contains irritants (see section II MSDS). Do not get in eyes. Avoid prolonged skin contact.**Other Precautions **Avoid prolonged inhalation of heated vapors. Exercise caution as spilled product is slippery, especially in contact with water.****Section VIII — Control Measures**Respiratory Protection (Specify Type) **None required for normal end use processes. Observe section II limits.**

Ventilation	Local Exhaust	Special	None required
	Ensure Section II is met	Other	None required
	Mechanical (General) Recommended		

Protective Gloves **Impervious neoprene or rubber** Eye Protection **Safety glasses or goggles**Other Protective Clothing or Equipment **Shoes, apron or other as needed to prevent skin contact.**Work/Hygenic Practices **Wash thoroughly after handling.**

Stockhausen

Material Safety Data Sheet
May be used to comply with
OSHA's Hazard Communication Standard,
29 CFR 1910.1200. Standard must be
consulted for specific requirements.

U.S. Department of Labor
Occupational Safety and Health Administration
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IDENTITY (As Used on Label and List) **praestol K270FL**

Note: Blank spaces are not permitted. If any item is not applicable, or no information is available, the space must be marked to indicate that.

Section I

Manufacturer's Name **STOCKHAUSEN, INC.**

Emergency Telephone Number **(919) 378-9393**

Address (Number, Street, City, State, and ZIP Code)

Telephone Number for Information **(919) 378-9393**

2408 Doyle Street

Date Prepared
March 25, 1991

NA = Not Applicable
NE = Not Established

Greensboro, N.C. 27406

Signature of Preparer (optional)

William R. Pitt

Section II — Hazardous Ingredients/Identity Information

Serial No. **0094-2**

Hazardous Components (Specific Chemical Identity, Common Name(s))	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (optional)
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Hydrocarbon

Cas. No. **64742-47-8**

N/E

N/E

200 ppm TLV* ---

Surfactant

Cas. No. **9016-45-9**

N/E

N/E

Irritant ---
(eye and skin)

Polymer (acrylamide co-polymer)
(trade secret)

N/E

N/E

N/E ---

(*TLV recommended by Exxon Medical Research)

Section III — Physical/Chemical Characteristics

Boiling Point	ca. 98°C	Specific Gravity (H ₂ O = 1)	@ 20°C	1.02
Vapor Pressure (mm Hg.)	ca. 37	Melting Point	Less than	0°C
Vapor Density (AIR = 1)	Greater than	1	Evaporation Rate (Butyl Acetate = 1)	Less than
				1

Solubility in Water

Soluble-0.5% to 1.0% maximum due to viscous nature of polymer solutions

Appearance and Odor

Viscous, milky white emulsion; mild odor of hydrocarbon and acrylate.

Section IV — Fire and Explosion Hazard Data

Flash Point (Method Used)	Flammable Limits	LEL	UEL
Greater than 100°C) (PMCC)	N/E	N/E	N/E

Extinguishing Media

Water fog, dry chemical, CO₂, and Halon type extinguishants

Special Fire Fighting Procedures

Spilled product creates extremely slippery conditions.

Product in contact with water is even more slippery. Exercise Caution.

Unusual Fire and Explosion Hazards

Hydrocarbon component is combustible if separated from the mixture

(ie: evaporation - stratification)

Section V — Reactivity Data

Stability	Unstable		Conditions to Avoid	None known
	Stable	X		

Incompatibility (Materials to Avoid)

None known

Hazardous Decomposition or Byproducts

None known

Hazardous Polymerization

May Occur

Conditions to Avoid

None known

Will Not Occur

X

Section VI — Health Hazard Data

Route(s) of Entry:

Inhalation?

Yes

Skin?

Yes

Ingestion?

No

Health Hazards (Acute and Chronic)

Components, hydrocarbon and surfactant are considered irritants. Prolonged inhalation of vapors may cause irritation of the respiratory tract. Aspiration of mist into lungs may cause pulmonary disorder.

Carcinogenicity:

NTP?

No

IARC Monographs?

No

OSHA Regulated?

No

Signs and Symptoms of Exposure

Not confirmed: reddening, swelling of the area affected with itching, burning or other discomfort.

Medical Conditions

Generally Aggravated by Exposure

Not confirmed: existing rashes, cysts, allergies or other sensitive areas.

Emergency and First Aid Procedures

Eyes and skin are to be flushed thoroughly with water. Inhalation: move to source of fresh air. Consult physician regarding any continued discomfort.

Section VII — Precautions for Safe Handling and Use

Steps to Be Taken in Case Material is Released or Spilled

Contain and collect using a suitable absorbent if needed. Flush residuals to the drain. Place collected material into suitable container for disposal or use if practical.

Waste Disposal Method

Dispose of in accordance with Federal, State, and Local laws. Consult WWTP* for controlled release of diluted material.

Precautions to Be Taken in Handling and Storing

Handle as an irritant. Do not get into eyes. Avoid prolonged contact with the skin. Do not inhale or ingest.

Other Precautions

Spilled product creates extremely slippery conditions especially in contact with water.

Section VIII — Control Measures

Respiratory Protection (Specify Type)

None required for normal enduse processes. Observe Section II Limits.

Ventilation

Local Exhaust

Insure Section II is observed

Special

None required

Mechanical (General)

Other

None required

Recommended

Protective Gloves

Impervious Type: Rubber or Neoprene

Eye Protection

Safety glasses

Other Protective Clothing or Equipment

Apron, shoes and other clothing as needed to prevent prolonged skin contact

Work/Hygiene Practices

Wash thoroughly after handling.

*WWTP = Wastewater Treatment Plant

THE ALBRIGHT AND WILSON COMPANY MATERIAL SAFETY DATA SHEET

THE ALBRIGHT AND WILSON COMPANY
ENVIRONMENTAL SERVICES

P. O. BOX 26229
RICHMOND, VA. 23260-6229 (USA)

***** PRODUCT IDENTIFICATION *****
36% CO-PRODUCT PHOSPHORIC ACID SOLUTION

SUPPLIER:
THE ALBRIGHT AND WILSON COMPANY
CHEMICAL NAMES AND SYNONYMS:
PHOSPHORIC ACID, RINSE WATER
USE OR DESCRIPTION:
INORGANIC FERTILIZER

HEALTH EMERGENCY TELEPHONE:
(803)554-1229
TRANSPORT EMERGENCY TELEPHONE:
(800)424-9300(CHEMTREC)
OTHER DESIGNATION:
690

***** TYPICAL CHEMICAL AND PHYSICAL PROPERTIES *****

APPEARANCE: PALE GREEN LIQUID	VISCOSITY: AT 100 F, SUS >238.0	AT 40 C, CS >51.2
ODOR: ODORLESS	VISCOSITY: AT 210 F, SUS NE	AT 100 C, CS NE
RELATIVE DENSITY: 15/4 C 1.28	SOLUBILITY IN WATER: COMPLETE	PH: NE
MELTING POINT: F(C) NA	POUR POINT: F(C) NE	
BOILING POINT: F(C) NE	FLASH POINT: F(C) (METHOD) NA	
VAPOR PRESSURE:MM HG 20C 15.0		

NA=NOT APPLICABLE NE=NOT ESTABLISHED D=DECOMPOSES

***** INGREDIENTS *****

	WT PCT (APPROX)	PEL MG/M3	PPM	TLV(TWA) MG/M3	PPM
HAZARDOUS INGREDIENTS:					
PHOSPHORIC ACID (7664-38-2)	37	1	NE	1	NE
NITRIC ACID (7697-37-2)	1	5	2	5.2	2
SULFURIC ACID (7664-93-9)	2	1	NE	1	NE
	STEL:	NE	NE	3	NE

NOTE: TLVS SHOWN FOR GUIDANCE ONLY. FOLLOW APPLICABLE REGULATIONS.

INFORMATION GIVEN HEREIN IS OFFERED IN GOOD FAITH AS ACCURATE, BUT WITHOUT GUARANTEE. CONDITIONS OF USE AND SUITABILITY OF THE PRODUCT FOR PARTICULAR USES ARE BEYOND OUR CONTROL; ALL RISKS OF USE OF THE PRODUCT ARE THEREFORE ASSUMED BY THE USER AND WE EXPRESSLY DISCLAIM ALL WARRANTIES OF EVERY KIND AND NATURE, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE IN RESPECT TO THE USE OR SUITABILITY OF THE PRODUCT. NOTHING IS INTENDED AS A RECOMMENDATION FOR USES WHICH INFRINGE VALID PATENTS OR AS EXTENDING LICENSE UNDER VALID PATENTS. APPROPRIATE WARNINGS AND SAFE HANDLING PROCEDURES SHOULD BE PROVIDED TO HANDLERS AND USERS.

***** FIRE AND EXPLOSION HAZARD DATA *****

FLASH POINT: F(C) (METHOD)
NAFLAMMABLE LIMITS: LEL
NAUEL
NAEXTINGUISHING MEDIA:
NOT APPLICABLE

SPECIAL FIRE FIGHTING PROCEDURES:

FIREFIGHTERS MUST USE RECOMMENDED PROTECTIVE EQUIPMENT AND SELF-
CONTAINED BREATHING APPARATUS. COOL STORAGE DRUMS WITH WATER SPRAY.
THIS MATERIAL WILL NOT BURN.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

NONE KNOWN.

***** EMERGENCY AND FIRST AID PROCEDURES *****

EYE CONTACT:

FLUSH THOROUGHLY WITH WATER FOR AT LEAST 15 MINUTES. GET
IMMEDIATE MEDICAL ASSISTANCE. IF MEDICAL ASSISTANCE IS NOT IMMEDIATELY
AVAILABLE, FLUSH AN ADDITIONAL 15 MINUTES.

SKIN CONTACT:

WASH CONTACT AREAS WITH SOAP AND WATER.

INHALATION:

REMOVE FROM FURTHER EXPOSURE. IF UNCONSCIOUSNESS OCCURS, SEEK
IMMEDIATE MEDICAL ASSISTANCE AND CALL A PHYSICIAN. IF BREATHING HAS
STOPPED, USE MOUTH TO MOUTH RESUSCITATION.

INGESTION:

IF SWALLOWED, IMMEDIATELY GIVE 1 TO 2 GLASSES OF WATER AND
CALL A PHYSICIAN, HOSPITAL EMERGENCY ROOM OR POISON CONTROL CENTER FOR
ASSISTANCE. DO NOT INDUCE VOMITING OR GIVE ANYTHING BY MOUTH TO AN
UNCONSCIOUS PERSON.

***** REACTIVITY DATA *****

STABILITY: (THERMAL, LIGHT, ETC.) CONDITIONS TO AVOID:

STABLE

REACTION OF THE MATERIAL WITH ACTIVE METALS (IE
AL, ZN, FE, ETC.) CAN LIBERATE HYDROGEN.

INCOMPATIBILITY: (MATERIALS TO AVOID)

ACTIVE METALS

HAZARDOUS DECOMPOSITION PRODUCTS:

PHOSPHORUS OXIDES.

HAZARDOUS POLYMERIZATION:

WILL NOT OCCUR

CONDITIONS TO AVOID:
NOT APPLICABLE

***** SPILL OR LEAK PROCEDURE *****

ENVIRONMENTAL IMPACT:

REPORT SPILLS AS REQUIRED TO APPROPRIATE AUTHORITIES. U. S. COAST GUARD REGULATIONS REQUIRE IMMEDIATE REPORTING OF SPILLS THAT COULD REACH ANY WATERWAY INCLUDING INTERMITTENT DRY CREEKS. REPORT SPILL TO COAST GUARD TOLL FREE NUMBER 800-424-8802. IN CASE OF ACCIDENT OR ROAD SPILL NOTIFY CHEMTREC (800) 424-9300.

PROCEDURES IF MATERIAL IS RELEASED OR SPILLED:

PERSONNEL PERFORMING CLEANUP MUST USE PROTECTIVE EQUIPMENT.

SPRINKLE HYDRATED LIME OR SODA ASH ON SPILL AREA. SCRAPE UP AND REMOVE. DISPOSE OF AT AN APPROPRIATE WASTE DISPOSAL FACILITY IN ACCORDANCE WITH CURRENT APPLICABLE LAWS AND REGULATIONS, AND PRODUCT CHARACTERISTICS AT TIME OF DISPOSAL.

WASTE MANAGEMENT:

SLOWLY ADD WASTE TO A LARGE VOLUME OF AGITATED SOLUTION OF SODA ASH AND SLAKED LIME. DISPOSE OF WASTE AT AN APPROPRIATE WASTE DISPOSAL FACILITY IN ACCORDANCE WITH CURRENT APPLICABLE LAWS AND REGULATIONS, AND PRODUCT CHARACTERISTICS AT TIME OF DISPOSAL.

***** SPECIAL PROTECTION INFORMATION *****

EYE PROTECTION:

CHEMICAL TYPE GOGGLES MUST BE WORN.

SKIN PROTECTION:

NO SPECIAL EQUIPMENT REQUIRED. HOWEVER, GOOD PERSONAL HYGIENE PRACTICES SHOULD ALWAYS BE FOLLOWED.

RESPIRATORY PROTECTION:

NO SPECIAL REQUIREMENTS UNDER ORDINARY CONDITIONS OF USE AND WITH ADEQUATE VENTILATION. APPROVED RESPIRATORY PROTECTIVE EQUIPMENT MUST BE USED IN HIGH VAPOR OR MIST CONCENTRATIONS.

VENTILATION:

NO SPECIAL REQUIREMENTS UNDER ORDINARY CONDITIONS OF USE AND WITH ADEQUATE VENTILATION.

OTHER: PRIMARY ROUTE OF ENTRY- SKIN CONTACT

***** SPECIAL PRECAUTIONS *****

HANDLING: AVOID CONTACT WITH EYES. AVOID INHALATION OF VAPORS OR MISTS.

STORAGE: STORE IN A DRY WELL VENTILATED LOCATION, AWAY FROM FIRE HAZARDS AND PROXIMITY TO ACTIVE METALS. EXERCISE DUE CAUTION TO PREVENT DAMAGE TO AND LEAKAGE FROM PRODUCT CONTAINERS.

STORED MATERIALS MUST BE LABELED AS: 36% CO-PRODUCT PHOSPHORIC ACID SOLUTION

THIS PRODUCT IS CLASSIFIED AS A CORROSIVE LIQUID, UN 1805 BY DOT.

***** HEALTH HAZARD DATA *****

ACUTE HEALTH HAZARDS

EYE AND RESPIRATORY IRRITANT.

CARCINOGENICITY

LISTED: NTP NO IARC MONOGRAPHS NO OSHA REGULATED NO

SIGNS AND SYMPTOMS OF EXPOSURE:

RESPIRATORY, EYE AND/OR SKIN IRRITATION.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:

NONE KNOWN.

SUBACUTE AND MUTAGENICITY (SUMMARY)

NE

CHRONIC OR SPECIALIZED (SUMMARY)

NE

TARGET ORGAN EFFECTS

CORROSIVE TO TISSUES WITH WHICH IT MAKES CONTACT.

OTHER DATA

NONE KNOWN

SECTION 313 SUPPLIER NOTIFICATION:

THIS PRODUCT CONTAINS THE FOLLOWING TOXIC CHEMICALS SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF THE EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT OF 1986 AND OF 40 CFR 372.

<u>CAS #</u>	<u>CHEMICAL NAME</u>	<u>PERCENT BY WEIGHT</u>
7664-38-2	PHOSPHORIC ACID	37
7697-37-2	NITRIC ACID	1
7664-93-9	SULFURIC ACID	2

CALIFORNIA:

WARNING: THIS PRODUCT MAY CONTAIN A CHEMICAL KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER, OR BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM.

ALL PHOSPHORUS COMPOUNDS MAY BE REASONABLY EXPECTED TO CONTAIN ARSENIC AND POSSIBLY CADMIUM AND/OR LEAD IN CONCENTRATIONS RANGING FROM A FEW PARTS PER BILLION TO A FEW PARTS PER MILLION.

HAZARD WARNING: THERE IS A POSSIBILITY BICYCLIC PHOSPHATES OR PHOSPHITES CAN BE PRODUCED AS A RESULT OF THE THERMAL DECOMPOSITION OF THIS PRODUCT IN COMBINATION WITH TRIMETHYLOL PROPANE, TRIMETHYLOL PROPANE DERIVED PRODUCTS OR THEIR CORRESPONDING TRIMETHYLOL ALKANE HOMOLOGS. BICYCLIC PHOSPHATES AND PHOSPHITES ARE A CLASS OF MATERIALS WITH ACUTE NEUROTOXIC PROPERTIES WHICH PRODUCE CHARACTERISTIC CONVULSIVE SEIZURES IN TEST ANIMALS. THEREFORE, THIS PRODUCT SHOULD NOT BE USED IN CONJUNCTION WITH TRIMETHYLOL PROPANE OR TRIMETHYLOL PROPANE DERIVED PRODUCTS.

